



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,450	09/09/2003	Richard Martin	14189US02	4742
23446 7590 08/03/2010 MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661				
EXAMINER KIM, WESLEY LEO				
ART UNIT 2617		PAPER NUMBER		
MAIL DATE 08/03/2010		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/658,450  
Filing Date: September 09, 2003  
Appellant(s): MARTIN ET AL.

---

Keith M. Mullervy  
(Reg. No. 62,382)  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 5/24/10 appealing from the Office action  
mailed 12/2/09.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1-28 are pending and rejected in the current Office Action.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner.

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

6032194	Gai et al	2-2000
6005884	Cook et al	12-1999

Jeffries et al "Method and System for Providing an Optimal Path Choice for Differentiated Services" US 2002/00854495 A1, (Jan 3, 2001)

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The examiner notes that minor modifications have been made to the rejections below to clarify the issues raised by the Appellant. No new citations are used, but the existing citations are just explained a little better.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gai et al (US 6032194) in view of Jeffries et al (US 2002/0085495 A1) and Cook et al (US 6005884).

**Regarding Claims 1, 9, and 17**, Gai teaches determining based on lowest cost path related information (Col.2:lines 53-56 and Col.4:lines 1-6, the

next best information is obviously the next lowest cost path), at least one available switch port on a network switch (Fig.1:114 and Col.7:lines 53-55, switch) for handling a LAN (Col.4:lines 10-15), said LAN is communicatively coupled to a first default switch port of said network switch (Col.11:lines 8-15 and Col.5:lines 20-24 and Fig.1:102, 103, 104, LANs are connected to ports); wherein said first default switch port (Col.2:lines 53-56) is different from said at least one available switch port (Col.4:lines 1-10, default port is different from new root port, i.e. available switch port); provisioning said at least one available switch port of said network switch to provide service to said LAN (Col.12:lines 19-27 and Col.5:lines 44-47, the new root port is the at least one available switch port providing service to said LAN); and communicating information using at least one of said first default switch port and said at least one provisioned switch port of said network switch (Col.12:lines 19-27 and Col.5:lines 44-47, the new root port is the at least one available switch port), however **Gai does not expressly teach** that lowest cost path information is bandwidth related information.

Jeffries clearly teaches that it is well known in the art that lowest cost path information is bandwidth related information (Par.5:lines 10-13). Therefore, one of ordinary skill in the art would find it obvious to modify Gai with Jeffries at the time of the invention such that, the lowest cost path information is bandwidth related information, to provide a method where data may be transferred at the best possible rate possible so that the users be provided the best possible service. However, the combination of **Gai and Jeffries does not expressly**

**teach** at least one available switch port having a capability to handle a first access point group.

Cook teaches that a group of access points can provide service to remote users via a LAN (Col.3:37-46, one or more access points is the group). Therefore, it would have been obvious to a skilled artisan to modify the teachings of Gai and Jeffries with the teachings of Cook, such that one available switch port has a capability to handle a first access point group to provide a hybrid wired/wireless network. This provides a method where group of access points connected to a LAN (the LAN is obviously connected to an available switch port as can be seen by Gai) can provide extended coverage of the communication system.

**Regarding Claims 2, 10, and 18**, as applied above, Gai et al. as modified by Jeffries and Cook further discloses that the determining further comprises selecting said at least one available switch port from a reserved pool of available switch ports (Figure 3D, Column 11, Lines 41-52; Column 12, Lines 13-27 and 37-42 and 46-55).

**Regarding Claims 3, 11, and 19**, as applied above, Gai et al. as modified by Jeffries and Cook further discloses returning said selected at least one available switch port to said reserved pool of available switch ports upon abatement of a need to utilize said provisioned at least one available switch port (Figure 3E, Column 14, Lines 37-48).

**Regarding Claims 4, 12, and 20**, as applied above, Gai et al. as modified by Jeffries and Cook further discloses selecting said at least one available switch port from at least one of a first switching element and a second switching element, said first default switch port being associated with said first switching element (the different ports of the access switch are connected to different backbone switches, additionally some local area networks can communicate directly with more than one switch - Column 10, Lines 49-67; Column 11, Lines 1-7 and 8-24 and 41-51," Column 12, Lines 19-27).

**Regarding Claims 5, 13, and 21**, as applied above, Gai et al. as modified by Jeffries and Cook further discloses determining at least one a second available switch port having a capability to handle a second access point group, said second access point group having a second default switch port (Col.10:lines 49-67 and Col.11:lines 1-7, and lines 41-51, more than one root port is available but the one providing best path cost is used and a second port (i.e. port 4) can be used when the first one (i.e. port 3) fails to support a second LAN 102 to forward data to the root).

**Regarding Claims 6, 14, and 22**, as applied above, Gai et al. as modified by Jeffries and Cook further discloses provisioning at least a third available switch port to provide service to said second access point group (Column 10, Lines 1-12; Column 11, Lines 8-24 and 41-51," Column 12, Lines 19-27).

**Regarding Claims 7, 15, and 23**, as applied above, Gai et al. as modified by Jeffries and Cook further discloses switching between any two of said at least

one available switch port, said at least a second available switch port and said at least a third available switch port (Column 11, Lines 8-24 and 4.1-51, Column 12, Lines 19-27 and 32-42).

**Regarding Claims 8, 16, and 24**, as applied above, Gai et al. as modified by Jeffries and Cook further discloses switching between said default switch port and said at least one available switch port in a time period less than on the order of a few milliseconds from at least one of a detectable link failure and a configuration change (change occurs at or about the same instant, and the connection is tested every few milliseconds- Column 12, Lines 4-12; Column 14, Lines 40-51).

**Regarding Claim 26**, Jeffries further teaches a QOS controller (Par.27:lines 9-11, second logic determines which link has max benefits).

**Regarding Claims 26-28**, Jeffries further discloses QOS information (Par.5: minimum cost information is QOS information).

#### **(10) Response to Argument**

- **Appellants Argument 1:** combination fails disclose and/or enable “determining, based on at least bandwidth-related information, at least one available switch port” (Pg.7 of Brief) because Gai fails to enable selecting a backup switch based on cost (Pg. 8 of Brief).

Examiner Respectfully Disagrees. Clearly, Gai teaches selecting a backup based on path cost (Col.12:lines 19-24 and Col.4:lines 1-10, information is lowest



path cost (i.e. number of hops) and also see Col.3:lines 5-8 which states that next best information is lowest cost information) and then Jeffries teaches that it is well known in the art that the shortest path (i.e. lowest cost/least number of hops) has the largest available bandwidth. Therefore, the limitation is taught by Gai in view of Jeffries. The examiner notes that the rejection was addressed by the combined teachings of Gai in view of Jefferies however the appellant is performing a piecemeal analysis of the references. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

- **Appellants Argument 2:** combination fails to disclose or suggest "said first access point group is communicatively coupled to a first default switch port of said network switch" (Pg.9 of Brief) because Gai does not teach that the LAN 103 is connected to the root port 3 (Pg.10 of Brief).

Examiner respectfully disagrees. Gai teaches that for each LAN coupled to more than one switch, a single "designated switch" is elected that will forward frames from the LAN toward the root (Col.2:lines 47-52, so LAN (i.e. LAN 103) forward frames to a root (Col.8:lines 57-67 i.e. a root switch such as Fig.1:120)) and each switch further selects one port known as a root port (Fig.1:3, i.e. a first

default switch port) which gives the lowest cost path from the switch (i.e. designated switch such as Fig.1:114) to the root switch (i.e. Fig.1:120) (Col.2:lines 53-56 and Col.12:lines 15-23, root port 3 is the first default switch port). A skilled artisan clearly recognizes that the LAN 103 is communicatively coupled to the first default switch port (i.e. the root port 3) via port 7 in order for the LAN 103 to forward data to the root switch 120 (Col.2 47-56, Col.8:lines 57-67, and Col.12:lines 15-23). Therefore the limitation of "said first access point group is communicatively coupled to a first default switch port of said network switch" is taught by the combination. The Claim is broadly recited and the examiners interpretation of "communicatively coupled" is clearly mapped to the prior art. LAN 103 is communicatively coupled to first default switch port 3 of network switch via port 7 since LAN 103 can forward data to root switch 120 via port 3.

- **Appellants Argument 3:** Cook does not disclose that the "first access point group is communicatively coupled to a first default switch port of said network switch" (Pg.10 and 11 of Brief).

Examiner notes that the limitation was addressed by the combined teachings of Gai in view of Jeffries and Cook. Where Gai already teaches that LANs are coupled to a first default switch port as can be support by the response of Argument 2 seen above. Cook was combined with Gai and Jeffries, where Cook teaches that it is well known in the art that a group of access points provide

service to users via a LAN (Col.3:lines 37-46). Clearly group of access points can be connected to LANs for providing extended coverage of a communication system. Applicant is clearly performing a piecemeal analysis of the Cook reference, when the combination of the Gai, Jeffries, and Cook should be considered. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

- **Appellants Argument 4:** the proposed combination fail to teach "wherein said second access point group is communicatively coupled to a second default switch port of said network switch" (Pg.13 of Brief) and Appellant further argues that Gai's switch can not have both a first default switch and a second default switch (Pg.13 of Brief) since only one port can function as the root port at one time.

The examiner respectfully disagrees. Examiner notes that Gai Clearly teaches that a back-up port is selected when the first default switch port fails (Col.10:lines 49-67 and Col.11:lines 1-7, and lines 41-51, the backup-port is the second default switch port (i.e. port 4), since it will become the default port once the first default switch port (i.e. port 3) fails). Further, from Fig.1 of Gai and Col.2:lines 47-56, the LANs that were once connected to the first default switch

port (Fig.1: port 3) will now be connected to the second default switch port (Fig.1: port 3). Therefore, a second LAN (Fig.1:LAN 102) will be connected to the second default switch port (Fig.1:port 4) which, as taught by the Cook reference is obvious that a group of access points can be connected to a LAN ((Col.3:lines 37-46)).

Further, Examiner notes that the claim language does not say that the first and second default switch ports must be provided at the same time, as the appellant seems to be indicating. The examiner has interpreted the claims such that a first default switch port can be provided at a first time and a second default switch port being provided at a second time, which reads on the recited claim language.

Examiner notes that Claims 5, 13, and 21 were not rejected over Arthurs and Sawey, but over Gai, Jeffries, and Cook.

- **Appellant Argument 5:** Gai cannot teach "provisioning at least a third available switch port of said network switch to provide service to said second access point group" (Page 14 of Brief).

The examiner respectfully disagrees. Gai teaches in Col.11:lines 8-24 that each access switch has a port which provides access to a root and Col.10:lines 49-67 and Col.11:lines 1-7, and lines 41-51 clearly indicate that ports 3, 4, or 2 could be used. So if the second default root port 4 communicatively coupled to second LAN (i.e. LAN 102) as seen in response to Appellants argument 4 above

fails, then LAN 102 (i.e. second LAN) could use port 2 (i.e. third default switch port) to forward data to the root. The examiner notes that while the actual invention may differ from the examiners interpretation. The claims are broadly recited and the examiners interpretation and mapping of the references to the claims anticipate the broadly recited Claim language.

- All Claims remain rejected in view of the response to arguments as can be seen above.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Wesley L Kim/  
Examiner, Art Unit 2617

Conferees:

/George Eng/  
Supervisory Patent Examiner, Art Unit 2617

/Kent Chang/  
Supervisory Patent Examiner, Art Unit 2617